Mitsdarfer Brothers Lawn & Landscape Inc.
21 Whitekirk Drive
Wilmington, DE 19808
302-633-1150

May 18, 2021

Via UPS Ground

Ms. Angela Marconi
Program Manager, Engineering & Compliance Branch
Delaware Department of Natural Resources & Environmental Control
Division of Air Quality
State Street Commons
100 W. Water Street
Dover, DE 19904

RE: Air Permit Application for Wood Grinding Plant for Mitsdarfer Brothers Lawn & Landscape Inc., Located at 112 Water St, Wilmington DE 19804

Dear Ms. Marconi,

Mitsdarfer Brothers Lawn & Landscape Inc. ("Mitsdarfer Brothers") is submitting an air permit application for its portable wood grinding plant to be located at Mitsdarfer Brothers permanent site, 112 Water St, Wilmington DE 19804, as well as at a temporary site located at 1107 Willow Grove Rd, Felton, DE 19443. The wood grinding plant will consist of a Vermeer HG6800TX Horizontal Wood Grinder and its associated diesel engine. The equipment will be used to process tree waste into mulch. The temporary site will be used for approximately one month to process tree waste into mulch, which will be transported off site. The zoning information for the site is included as part of this application package.

Please find enclosed the permit application, a block flow diagram, emission calculations, and specific equipment specifications information in support of the application.

If you have any additional questions or concerns, please do not hesitate to contact by email at mitsdarferforestproducts@gmail.com or by phone at 302-633-1150, or you can contact our consultant, Tom Cunningham of Compliance Plus Services, Inc. at tcunningham@complianceplusservices.com or via phone at 215-734-1414.

Sincerely,

Frederick H. Mitsdarfer Jr. President

Frederick H. Mitsdarfer Jr., President

Mitsdarfer Brothers Lawn & Landscape Inc.

Cc: T. Cunningham, Compliance Plus Services – electronic

N:\LETTERS\7200-7299\7232 - Mitsdarfer DNREC Air Permit Cover Letter.docx

Form AQM-1

Administrative Information

Administrative Information

One original and one copy of All Application Forms Should Be Mailed To:
Division of Air Quality
100 West Water Street, Suite 6A
Dover, DE 19904

All Checks Should Be Made Payable To:
State of Delaware

Company and Site Information

1.	Company Name: **Mitsdarfer Brothers Tree Service, Inc.**		
2.	Company Mailing Address: **21 Whitekirk Drive**		
	City: **Wilmington**	State: **DE**	Zip Code: **19808**
3.	Site Name: **Christiana Road Site**		
4.	Site Mailing Address: *(if different from above)*		
	City:	State:	Zip Code:
5.	Physical Location of Site: **709 Stanton Christiana Road** *(if different from above)*		
	City: **Newark**	State: **DE**	Zip Code: **19713**
6.	Site Billing Address: **21 Whitekirk Drive** *(if different from above)*		
	City: **Wilmington**	State: **DE**	Zip Code: **19713**
7.	Air Quality Management Facility ID Number:		
8.	Site NAICS Code): **561730** *(list all that apply*		
9.	Site SIC Code: *(list all that apply)*		
10.	Site Location Coordinates:	Latitude: 39 ° 42' 15.12" Longitude: 75 ° 39' 9.144"	
11.	Is the Facility New or Existing?	☐ NEW	☒ EXISTING
If the Facility is an Existing Facility, Complete the Rest of Question 11. If Not, Proceed to Question 12.			
11.1.	Does the Facility Have Active Air Permits?	☐ YES	☒ NO
12.	Is this Application For New Equipment or a Modification to Existing Equipment? ☒ New Equipment ☐ Modification of Existing Equipment ☐ Other (Specify):		
If the application is for the modification of existing equipment, complete the rest of Question 12. If not, proceed to Question 13.			

Company and Site Information

12.1. Does the Equipment Have an Active Air Permit? ☐ YES ☐ NO

If the equipment has an active air permit, complete the rest of Question 12. If not, proceed to Question 13.

12.2. Permit Number of Existing Equipment:

13. Status of Equipment Being Applied For:
☒ Natural Minor Source
☐ Synthetic Minor Source
☐ Major Source
☐ Federally Enforceable Restrictions

14. Facility Status: ☒ Natural Minor Facility ☐ Synthetic Minor Facility ☐ Major Facility

If the facility is a Major Source, complete the rest of Question 14. If not, proceed to Question 15.

14.1. Responsible Official Name: **Fred Mitsdarfer**

14.2. Responsible Official Title: **President**

Contact Information

15. Name of Owner or Facility Manager: **Fred Mitsdarfer**

16. Title of Owner or Facility Manager: **President**

17. Permit Contact Name: **Steven Mitsdarfer**

18. Permit Contact Title: **Yard Manager**

19. Permit Contact Telephone Number: **902-985-3363**

20. Permit Contact Fax Number:

21. Permit Contact E-Mail Address: **mitsdarferforestproducts@gmail.com**

22. Billing Contact Name: **Fred Mitsdarfer**

23. Billing Contact Title: **President**

24. Billing Contact Telephone Number: **302-836-5600**

25. Billing Contact Fax Number:

26. Billing Contact E-Mail Address: **mitsdarferforestproducts@gmail.com**

Proposed Construction and Operating Schedule

27. When Will the Proposed Construction/Installation/Modification Occur: 5/17/21

28. Proposed Operating Schedule: **9** hours/day **5** days/week **52** weeks/year

28.1. Is There Any Additional Information Regarding the Operating Schedule? ☐ YES ☒ NO

If YES, complete the rest of Question 28. If NO, proceed to Question 29.

Proposed Construction and Operating Schedule

28.2. Describe the Additional Information:

Coastal Zone Information

29. Is the Facility Located in the Coastal Zone? ☐ YES ☒ NO

If the facility is located in the Coastal Zone complete the rest of Question 29. If not, proceed to Question 30.

29.1. Is a Coastal Zone Permit Required for Construction or Operation of the Source Being Applied for? ☐ YES ☐ NO

Attach a copy of the Coastal Zone Determination if it has not been previously submitted

If a Coastal Zone Permit is required complete the rest of Question 29. If not, proceed to Question 30.

29.2. Has a Coastal Zone Permit Been Issued? ☐ YES ☐ NO

Attach a copy of the Coastal Zone Permit if it has not been previously submitted

Local Zoning Information

30. Parcel Zoning: **I - UDC - Industrial**

Attach Proof of Local Zoning if it has not been previously submitted

Application Information

31. Is the Appropriate Application Fee Attached? ☒ YES ☐ NO

32. Is the Advertising Fee Attached? ☒ YES ☐ NO

For help determining your application and advertising fees see:
http://www.dnrec.state.de.us/DNREC2000/Library/Fees/DE%20Permit%20Fees.htm

Attach the appropriate fees. Note that your Application will not be considered complete if the appropriate fees are not included.

33. Is a Cover Letter Describing the Process Attached? ☒ YES ☐ NO

Attach a brief cover letter describing your Application.

If the Facility is a New Facility complete Question 34. If not, proceed to Question35.

34. Is a Copy of the Applicant Background Information Questionnaire on Record at the Department? ☐ YES ☒ NO

If NO, complete the rest of Question 34. If YES, process to Question 35.

34.1 Is a Copy of the Applicant Background Information Questionnaire Attached? ☒ YES ☐ NO

For a copy of the Applicant Background Information Questionnaire see
http://www.dnrec.delaware.gov/services/Documents/Chapter79Form.pdf

Attach a copy of the Applicant Background Information Questionnaire if applicable.

35. Check Which Application Forms are Attached:

Application Information

☒ AQM-1	☐ AQM-3.4	☐ AQM-3.9	☐ AQM-3.14	☐ AQM-4.4	☐ AQM-4.9	☐ AQM-6
☒ AQM-2	☐ AQM-3.5	☐ AQM-3.10	☐ AQM-3.15	☐ AQM-4.5	☐ AQM-4.10	
☒ AQM-3.1	☐ AQM-3.6	☐ AQM-3.11	☐ AQM-4.1	☐ AQM-4.6	☐ AQM-4.11	
☐ AQM-3.2	☐ AQM-3.7	☐ AQM-3.12	☐ AQM-4.2	☐ AQM-4.7	☐ AQM-4.12	
☒ AQM-3.3	☐ AQM-3.8	☐ AQM-3.13	☐ AQM-4.3	☐ AQM-4.8	☒ AQM-5	

36. Check Which Documents are Attached:

- ☐ Coastal Zone Determination
- ☐ Coastal Zone Permit
- ☒ Proof of Local Zoning
- ☒ Application Fee
- ☒ Advertising Fee
- ☒ Applicant Background Information Questionnaire
- ☐ Claim of Confidentiality
- ☒ Manufacturer Specification(s)
- ☐ Material Safety Data Sheets (MSDSs)
- ☒ Supporting Calculations
- ☒ Descriptive Cover Letter
- ☐ Other (Specify):

Confidentiality Information

37. Do You Consider Any of the Information Submitted With this Application Confidential? ☐ YES ☒ NO

For help on how to submit a confidentiality claim see
http://regulations.delaware.gov/register/december2011/final/15%20DE%20Reg%20864%2012-01-11.htm

If a Claim of Confidentiality is made it MUST meet the requirements of Section 6 of DNREC's Freedom of Information ("FOIA") Regulation at the time the Application is submitted.

Signature Block

I, the undersigned, hereby certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all of its attachments as to the truth, accuracy, and completeness of this information. I certify based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete. By signing this form, I certify that I have not changed, altered, or deleted any portions of this application. I acknowledge that I cannot commence construction, alteration, modification or initiate operation until I receive written approval (i.e. permit, registration, or exemption letter) from the Department. I acknowledge that I may be required to perform testing of the equipment to receive construction or operation approval, and that if I do not receive approval to construct or operate that I may appeal the decision.

Fred Mitsdarfer — Owner or Operator

5/4/21 — Date

Signature of Owner or Operator

One Original and One Copy of All Application Forms Should Be Mailed To:
Division of Air Quality
100 W. Water Street, Suite 6A
Dover, Delaware 19904

All Checks Should Be Made Payable To:
State of Delaware

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL ("DNREC")

ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT

Pursuant to 7 Del. C. Chapter 79

FILING STATUS:

This Background Statement is being filed with DNREC because:

☒ 1. It is an initial application for a new permit (or permits) and the applicant or applicant company has not held a permit issued by DNREC for a period of 5 or more years [See 7 Del. C. § 7902(a) and (b)];

☐ 2. It is required on an annual basis because the applicant or applicant company has been designated a chronic violator pursuant to 7 Del. C. § 7904 [See 7 Del. C. § 7902(a)(7) and (b)(2)]; or

☐ 3. It is required on an annual basis as the applicant or applicant company has been found guilty, pled guilty or no contest to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment as defined in 7 Del. C. § 7902(c) [See 7 Del. C. § 7902(a)(7) and (b)(2)].

APPLICANT OR APPLICANT COMPANY'S NAME OR COMPANY'S NAME FILING STATEMENT	Mitsdarfer Brothers Tree Services, Inc.
DATE OF APPLICATION OR DATE OF STATEMENT	5/18/21
PERMIT(S) BEING APPLIED FOR OR STATEMENT FOR FILING STATUSES 2 OR 3	☒ **Permit Type(s)** Air Quality Construction Permit ☐ **Statement for filing Statuses 2 or 3—If filing under these statuses, attach a statement of the date of designation as Chronic Violator or the date of Conviction/Plea.**
OTHER DNREC PERMITS HELD	☒ **N/A – No other permits held with DNREC** ☐ **List of all DNREC permits currently held with dates of issuance and expiration attached.**

ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT

Please note: Companies filing statements pursuant to Chapter 79 have the right to identify information to be afforded confidential status pursuant to 7 Del. C. § 7903(b) and the requirements set forth in Section 6, "Requests for Confidentiality" of the DNREC *Freedom of Information Act Regulation*.

PROVIDING ALL OF THE INFORMATION REQUESTED IN THIS FORM SATISFIES THE REQUIREMENTS OF 7 DEL. C. CHAPTER 79 ("ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT") UNLESS THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL ("DNREC") OR THE DELAWARE DEPARTMENT OF JUSTICE DETERMINES THAT ADDITIONAL SUBMISSIONS ARE NECESSARY. FAILURE TO PROVIDE THE INFORMATION REQUESTED OR PROVIDING ERRONEOUS INFORMATION IS GROUNDS FOR DENYING OR REVOKING AN ENVIRONMENTAL PERMIT/APPROVAL/LICENSE, AND FOR CIVIL AND/OR CRIMINAL PENALTIES.

A. **(Authority – 7 Del. C. § 7902(a)(1&2) & § 7905)** Attach a complete list (full names) of all current members of the applicant company's board of directors, all current corporate officers, all persons owning more than 20% of the applicant's stock or other resources, all subsidiary/affiliated companies with type of business performed, street addresses, all parent companies with addresses, all companies with which the applicant's company shares two or more members of the board of directors, and the name(s) of the person(s) serving as the applicant's local chief operating officer(s) with respect to each facility covered by the permit in question or for the statement required for filing Statuses 2 or 3. [Note: For companies that do not have a *facility* located in Delaware, no listing for the local chief operating officer(s) is required].

- ☒ Information attached
- ☐ Information attached, except for local chief operating officer as there is no facility located in the State of Delaware.

B. **(Authority - 7 Del. C. § 7905)** Please check one of the following selections below, showing type of ownership for the applicant or applicant/statement company:

☐	Proprietorship	List the state, county, book record and page number where the certificate is found (Attach hereto).
☐	Partnership	List the state, county, book record and page number where the certificate is found (Attach hereto).
☒	Corporation (LLCs included)	List the city, state, date of incorporation, corporation file number, current corporate standing, registered agent, and address of the registered agent (Attach hereto).
☐	Municipality	
☐	Public Institution/ Government Agency	
☐	Other	_____

C. **(Authority - 7 Del. C. § 7902(a)(3) & § 7905)** Have any of the following been issued to or agreed to by the applicant or applicant/statement company, any employee, person, entity, or subsidiary/affiliated company, specified in response to Item A, for violation of any environmental statute, regulation, permit, license, approval, or order, regardless of the state in which it occurred, during the five years prior to the date of this application/statement

OFFENSE	YES	NO
Notice of Violation(s)		X
Administrative Order(s)		X
Administrative Penalty(ies)		X
Civil Action(s)		X
Civil Penalty(ies)		X
Civil and/or Administrative Settlement Agreement(s)		X
Permit/License/Approval Revocation		X
Arrest(s)		X
Conviction(s)		X
Criminal Penalty(ies)		X
Criminal Plea Bargain		X

D. **(Authority - 7 Del. C. § 7902(a)(3), (a)(4) & § 7905)** If you answered "yes" to any of the actions listed in Item C above for the applicant or applicant company or any other person identified in Item A, attach a description of the incidents or events leading to the issuance of each action, regardless of the state in which it occurred, for the 5 years prior to the date of the statement, and the disposition of each action, what state the action/offense occurred in, and any actions that have been taken to correct the violations that led to such enforcement action.

☒ N/A

☐ Information attached

E. **(Authority - 7 Del. C. § 7902(a)(5) & § 7905)** Attach a description of any felony or other criminal conviction for a crime involving harm to the environment or violation of environmental standards of any person or entity identified in Item A above that resulted in a fine greater than $1,000 or a sentence longer than 7 days, regardless of whether such fine or sentence was suspended.

☒ N/A

☐ Description attached

F. **(Authority - 7 Del. C. § 7902(a)(6) & § 7905)** Attach copies of any and all settlements of environmental claims involving the applicant, associated with actions identified in response to Item D above, whether or not such settlements were based on agreements where the applicant did not admit liability for the action.

☒ N/A

☐ Information attached

Items for Filing Statuses 2 or 3 Only

G. **(Authority - 7 Del. C. § 7902(a)(7) and § 7905)** If the applicant or applicant/statement company has been found guilty, pled guilty or no contest, to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment attach a summary of the events involved and a copy of the disposition of the action (*See 7 Del. C. § 7902(c) for definitions of "serious physical injury" or "serious harm to the environment" before answering this question.*)

☒ N/A

☐ Yes – Information Attached.

H. **(Authority - 7 Del. C. § 7902(a)(8))** – If the applicant or applicant/statement company has been designated a chronic violator under 7 Del. C. § 7904, a detailed written report from an independent inspector who has inspected the applicant's premises for the purpose of detecting potential safety and environmental hazards to employees and the surrounding community. The Secretary may waive the duty to submit a detailed written report upon a showing of good cause by the applicant. A showing by the applicant that the acts which caused it to be designated as a chronic violator did not jeopardize public health shall constitute "good cause" under this paragraph.

I. **(Authority - 7 Del. C. § 7902(a)(7))** – If the applicant or applicant/statement company has been designated a chronic violation under § 7904 of this Title, ***OR*** has been found guilty or pled no contest to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment, a statement made under oath by the applicant or applicant/statement company's local chief operating officer with respect to the facilities covered by the permit, stating that: (a) disclosures made by the applicant/reporting company under federal and state environmental statutes and regulations during the preceding calendar year have been, to the chief operating officer's knowledge, complete and accurate, and (b) that the facility has implemented policies, programs, procedures, standards or systems reasonably designated, in light of the size, scope, and nature of facility operations to detect deter and promptly correct any noncompliance with state environmental statutes and regulations. The statement filed pursuant to this paragraph shall include an acknowledgement by the affiant that intentionally false statements submitted in compliance with this paragraph constitute criminal perjury as defined at 11 Del. C. §§1221-1222.

STATE OF DELAWARE – DEPT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

ENVIRONMENTAL PERMIT BACKGROUND STATEMENT

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ THE PRECEEDING SUBMISSION, HAVE PROVIDED ALL OF THE INFORMATION REQUESTED, AND THAT ALL OF THE INFORMATION PROVIDED IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Fred Mitsdarfer — DATE: 5/4/21

SIGNATURE—APPLICANT OR OFFICER OF APPLICANT / STATEMENT COMPANY

NAME: Fred Mitsdarfer

TITLE: President

COMPANY NAME: Mitsdarfer Brothers Tree Service, Inc.

ADDRESS: 21 Whitekirk Drive

Wilmington, DE. 19808-1358

TELEPHONE: 1-302-633-1150

FAX NUMBER: 1-302-994-5401

REGISTERED AGENT NAME: Fred Mitsdarfer

ADDRESS: 21 Whitekirk Drive, Wilm. DE 19808

TELEPHONE: 302-633-1150

FAX NUMBER: N/A

SWORN TO AND SUBSCRIBED BEFORE ME THIS 4th **DAY OF** May, 2021.

KATHRYN VICTORIA MITSDARFER
My Commission Expires
January 21, 2022

Kathryn Victoria Mitsdarfer
NOTARY PUBLIC SIGNATURE (SEAL)

Kathryn Victoria Mitsdarfer
PRINTED NAME OF NOTARY PUBLIC

Delaware / New Castle
STATE / COUNTY

MY COMMISSION EXPIRES ON: 1/21/2022

jmb:20-24.doc/Rev. 8/2012

Department of State: Division of Corporations

HOME

View Search Results

Entity Details

File Number:	2266888	Incorporation Date / Formation Date:	6/25/1991 (mm/dd/yyyy)
Entity Name:	MITSDARFER BROTHERS LAWN & LANDSCAPING, INC.		
Entity Kind:	Corporation	Entity Type:	General
Residency:	Domestic	State:	State:
Status:	Good Standing	Status Date:	4/17/2017

REGISTERED AGENT INFORMATION

Name:	FREDERICK MITSDARFER JR.		
Address:	21 WHITEKIRK DRIVE		
City:	WILMINGTON	County:	New Castle
State:	DE	Postal Code:	19808
Phone:			

Back to Entity Search Email Status

Mitsdarfer Brothers Lawn & Landscaping, Inc.
21 Whitekirk Drive
Wilmington, DE 19808
302-633-1150

Section A:

Frederick H. Mitsdarfer, Jr. (President) 100% Ownership

Section B:

June 25, 1991 State of Delaware -

Corporation File Number: 2266888

Status: Good Standing (Please see attached)

Registered Agent: Frederick H. Mitsdarfer, Jr.

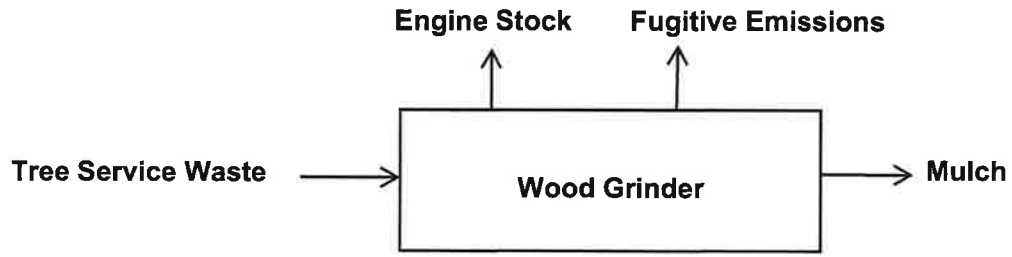
Mailing Address: 21 Whitekirk Drive, Wilmington, DE 19808

Form AQM-2

Process Flow Diagram

Process Flow Diagram

Sketch the Process Flow Diagram for the equipment or process being applied for. Include each emission unit and control device (even existing emission units that will not be modified by this application). You may identify each emission unit with a simple shape. Label each emission unit and control device with a unique identifier. Show the relationship between each emission unit and/or control device by drawing arrows between them to indicate the flow of air pollutants. List which application forms are included for each emission unit or control device below the shape representing each emission unit or control device . See http://www.delaware.gov/reg2/default.htm for example Process Flow Diagrams for common processes. If you already have a Process Flow Diagram for the equipment or process being applied for, you may attach it to the application instead of using this form.



Form AQM-3.1

Generic Process Equipment Application

Generic Process Equipment Application

If you are using this form electronically, press F1 at any time for help

General Information

1.	Facility Name: **Christiana Ave Site**
2.	Equipment ID Number:
3.	Provide a brief description of Equipment or Process: **Horizontal Wood Grinder**
4.	Manufacturer: **Vermeer**
5.	Model: **HG6800TX**
6.	Serial Number: **1VRK48040L1000156**

Raw Material Information

7. Raw Materials Used in Process

If there are more than four Raw Materials used, attach additional copies of this page as needed.

	Raw Material Used	CAS Number	Usage Rate (include units)	MSDS Attached?
7.1.	**Tree Service Waste**		**200 tons/hr**	☐ YES ☒ NO
7.2.				☐ YES ☐ NO
7.3.				☐ YES ☐ NO
7.4.				☐ YES ☐ NO

Attach a copy of all calculations made to support the data in the table above.
Attach a Material Safety Data Sheet (MSDS) for each Raw Material used.

Products Produced Information

8. Products Produced

If there are more than four Products Produced, attach additional copies of this page as needed.

	Product Produced	CAS Number	Production Rate (include units)	MSDS Attached?
8.1.	**Mulch**		**400 cubic yards/hr**	☒ YES ☐ NO
8.2.				☐ YES ☐ NO
8.3.				☐ YES ☐ NO
8.4.				☐ YES ☐ NO

Attach a copy of all calculations made to support the data in the table above.
Attach a Material Safety Data Sheet (MSDS) for each Product Produced.

Byproducts Generated Information

9. Byproducts Generated

If there are more than four Byproducts Generated, attach additional copies of this page as needed.

	Byproduct Generated	CAS Number	Generation Rate (include units)	MSDS Attached?
9.1.				☐ YES ☐ NO
9.2.				☐ YES ☐ NO
9.3.				☐ YES ☐ NO
9.4.				☐ YES ☐ NO

Attach a copy of all calculations made to support the data in the table above.
Attach a Material Safety Data Sheet (MSDS) for each Byproduct Generated.

General Information

10. Manufacturer's Rated Capacity or Maximum Throughput of Equipment or Process: **400 CY/hr**

11. Describe Important Manufacturer Specifications and/or Operating Parameters for Equipment or Process:

Attach the Manufacturer's Specification Sheet(s) for the equipment or process.

Control Device Information

12. Is an Air Pollution Control Device Used? ☐ YES ☒ NO

If an Air Pollution Control Device is used, complete the rest of Question 12. If not, proceed to Question 13.

12.1. Is Knockout Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.11 and attach it to this application.

12.2. Is a Settling Chamber Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.10 and attach it to this application.

12.3. Is an Inertial or Cyclone Collector Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.5 and attach it to this application.

12.4. Is a Fabric Collector or Baghouse Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.6 and attach it to this application.

12.5. Is a Venturi Scrubber Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.8 and attach it to this application.

12.6. Is an Electrostatic Precipitator Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.7 and attach it to this application.

12.7. Is Adsorption Equipment Used? ☐ YES ☐ NO

Control Device Information

If YES, complete Form AQM-4.2 and attach it to this application.

12.8. Is a Scrubber Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.4 and attach it to this application.

12.9. Is a Thermal Oxidizer or Afterburner Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.1 and attach it to this application.

12.10. Is a Flare Used? ☐ YES ☐ NO

If YES, complete Form AQM-4.3 and attach it to this application.

12.11. Is Any Other Control Device Used? ☐ YES ☐ NO

If YES, attach a copy of the control device Manufacturer's Specification Sheet(s).

If any other control device is used, complete the rest of Question 12. If not, proceed to Question 13.

12.12. Describe Control Device:

12.13. Pollutants Controlled: ☐ VOCs ☐ HAPs ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ NO_X ☐ SO_X ☐ Metals ☐ Other (Specify):

12.14. Control Device Manufacturer:

12.15. Control Device Model:

12.16. Control Device Serial Number:

12.17. Control Device Design Capacity:

12.18. Control Device Removal or Destruction Efficiency:

Stack Information

13. How Does the Process Equipment Vent:
(check all that apply)
☒ Directly to the Atmosphere
☐ Through a Control Device Covered by Forms AQM-4.1 through 4.12
☐ Through Another Control Device Described on This Form

If any of the process equipment vents directly to the atmosphere or through another control device described on this form, proceed to Question 14. If the process equipment vents through a control device, provide the stack parameters on the control device form and proceed to Question 18.

14. Number of Air Contaminant Emission Points: **1**

If there are more than three Emission Points, attach additional copies of this page as needed.

For the first Emission Point

15. Emission Point Name: **Grinder Fugitive Emissions**

15.1. Stack Height Above Grade: **NA feet**

15.2. Stack Exit Diameter: **NA feet**
(Provide Stack Dimensions If Rectangular Stack)

15.3. Is a Stack Cap Present? ☐ YES ☒ NO

15.4. Stack Configuration: ☐ Vertical ☐ Horizontal ☐ Downward-Venting
(check all that apply) ☒ Other (Specify): **No Stack**

Stack Information
15.5. Stack Exit Gas Temperature: **°F**
15.6. Stack Exit Gas Flow Rate: **ACFM**
15.7. Distance to Nearest Property Line: **feet**
15.8. Describe Nearest Obstruction:
15.9. Height of Nearest Obstruction: **feet**
15.10. Distance to Nearest Obstruction: **feet**
15.11. Are Stack Sampling Ports Provided? ☐ YES ☐ NO
For the second Emission Point. If there is no second Emission Point, proceed to Question 18.
16. Emission Point Name:
16.1. Stack Height Above Grade: **feet**
16.2. Stack Exit Diameter: **feet** *(Provide Stack Dimensions If Rectangular Stack)*
16.3. Is a Stack Cap Present? ☐ YES ☐ NO
16.4. Stack Configuration: *(check all that apply)* ☐ Vertical ☐ Horizontal ☐ Downward-Venting ☐ Other (Specify):
16.5. Stack Exit Gas Temperature: **°F**
16.6. Stack Exit Gas Flow Rate: **ACFM**
16.7. Distance to Nearest Property Line: **100 feet**
16.8. Describe Nearest Obstruction: **Cinderblock Barrier**
16.9. Height of Nearest Obstruction: **10 feet**
16.10. Distance to Nearest Obstruction: **40 feet**
16.11. Are Stack Sampling Ports Provided? ☐ YES ☒ NO
For the third Emission Point. If there is no third Emission Point, proceed to Question 18.
17. Emission Point Name:
17.1. Stack Height Above Grade: **feet**
17.2. Stack Exit Diameter: **feet** *(Provide Stack Dimensions If Rectangular Stack)*
17.3. Is a Stack Cap Present? ☐ YES ☐ NO
17.4. Stack Configuration: *(check all that apply)* ☐ Vertical ☐ Horizontal ☐ Downward-Venting ☐ Other (Specify):
17.5. Stack Exit Gas Temperature: **°F**
17.6. Stack Exit Gas Flow Rate: **ACFM**
17.7. Distance to Nearest Property Line: **feet**
17.8. Describe Nearest Obstruction:
17.9. Height of Nearest Obstruction: **feet**
17.10. Distance to Nearest Obstruction: **feet**

Stack Information

17.11. Are Stack Sampling Ports Provided? ☐ YES ☐ NO

Monitoring Information

18. Will Emissions Data be Recorded by a Continuous Emission Monitoring System? ☐ YES ☒ NO

If Yes, attach a copy of the Continuous Emission Monitoring System Manufacturer's Specification Sheets

If YES, complete the rest of Question 18. If NO, proceed to Question 19.

18.1. Pollutants Monitored: ☐ VOCs ☐ HAPs ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ NO_X ☐ SO_X ☐ Metals ☐ Other (Specify):

18.2. Describe the Continuous Emission Monitoring System:

18.3. Manufacturer:

18.4. Model:

18.5. Serial Number:

18.6. Will Multiple Emission Units Be Monitored at the Same Point? ☐ YES ☐ NO

If YES, complete the rest of Question 18. If NO, proceed to Question 19.

18.7. Emission Units Monitored:

18.8. Will More Than One Emission Unit be Emitting From the Combined Point At Any Time? ☐ YES ☐ NO

If YES, complete the rest of Question 18. If NO, proceed to Question 19.

18.9. Emission Units Emitting Simultaneously:

Voluntary Emission Limitation Request Information

19. Are You Requesting Any Voluntary Emission Limitations to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.? ☐ YES ☒ NO

If YES, complete the rest of Question 19. If NO, proceed to Question 20.

19.1. Describe Any Requested Emission Limitations:

Voluntary Operating Limitation Request Information

20. Are You Requesting Any Voluntary Operating Limitations to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.? ☐ YES ☒ NO

If YES, complete the rest of Question 20. If NO, proceed to Question 21.

Voluntary Operating Limitation Request Information

20.1. Describe Any Requested Operating Limitations:

Additional Information

21. Is There Any Additional Information Pertinent to this Application? ☐ YES ☒ NO

If YES, complete the rest of Question 21.

21.1. Describe:

Form AQM-3.3

Generator/Engine Application

Generator/Engine Application

If you are using this form electronically, press F1 at any time for help

General Information

1. Facility Name: **Christiana Road Site**
2. Equipment ID: **C27**
3. Manufacturer: **Caterpillar**
4. Model: **C27 ACERT**
5. Serial Number: **AT400613**
6. Maximum Power Rating of Engine: **950** horsepower
7. Standby Power Rating of Generator: **708** kilowatt
8. Date of Manufacture: **16-MAY-2019**
9. Installation Date: **2019**
10. Is the Equipment Being Applied For a Generator or an Engine? ☐ Generator ☒ Engine

If the equipment is a Generator, complete the rest of Question 10. If not, proceed to Question 11.

10.1. Is the Generator Existing or New? ☐ Existing ☐ New

10.2. Will the Generator Be Classified as an Emergency Generator or a Distributed Generator? ☐ Emergency ☐ Distributed

10.3. Has an Initial Notification Pursuant to 7 **DE Admin. Code** 1144 Been Submitted for this Generator? ☐ YES ☐ NO

If NO, include a copy of the Initial Notification with this application.

10.4. Have the Emissions From the Generator Been Certified to Meet the Currently Applicable US EPA Non-Road Emission Standards? ☐ YES ☐ NO

If YES, attach a copy of the Manufacturer's Certification. If NO, attach copies of any/all of the following: any maintenance or operating requirements/instructions provided by the generator manufacturer; the type, or a description, of any emission control equipment use; and/or emissions test data for the generator (such as a manufacturer's technical data sheet), any supporting documentation for any emission control equipment used, any supporting calculations, any quality control or assurance information, and any other information needed to demonstrate compliance with the requirements. Proceed to Question 11.

11. Primary Fuel: ☐ Natural Gas ☒ Diesel ☐ Propane ☐ Biodiesel ☐ Other (specify):

11.1. Maximum Annual Primary Fuel Consumption: **110,000 gal**

11.2. Heat Content of Primary Fuel: **140,000 BTU/gal**

11.3. Maximum Firing Rate: **47 gallons/hr**

11.4. Percent Sulfur of Primary Fuel: **0.0015** %

12. Secondary Fuel: ☐ Natural Gas ☐ Diesel ☐ Propane ☐ Biodiesel ☐ Other (specify):

General Information

12.1.	Maximum Annual Secondary Fuel Consumption: **MMCF**
12.2.	Heat Content of Secondary Fuel: **BTU/CF**
12.3.	Maximum Firing Rate: **MMCF/hr**
12.4.	Percent Sulfur of Secondary Fuel: %
13.	Is SCR/NSCR/SNCR/Ammonia Injection Used: ☐ YES ☐ NO

Stack Information

14. How Does the Process Equipment Vent:
(check all that apply)
☒ Directly to the Atmosphere
☐ Through a Control Device Covered by Forms AQM-4.1 through 4.12

If any of the process equipment vents directly to the atmosphere proceed to Question 15. If the process equipment vents through a control device, provide the stack parameters on the control device form and proceed to Question 16.

15. Emission Point Name: **Engine Stack**

15.1. Stack Height Above Grade: **15 feet**

15.2. Stack Exit Diameter: **0.5 feet**
(Provide Stack Dimensions If Rectangular Stack)

15.3. Is a Stack Cap Present? ☐ YES ☒ NO

15.4. Stack Configuration: ☒ Vertical ☐ Horizontal ☐ Downward-Venting
(check all that apply) ☐ Other (Specify):

15.5. Stack Exit Gas Temperature: **700 °F**

15.6. Stack Exit Gas Flow Rate: **5600 ACFM**

15.7. Distance to Nearest Property Line: **100 ft**

15.8. Describe Nearest Obstruction: **Cinderblock barrier**

15.9. Height of Nearest Obstruction: **10 ft**

15.10. Distance to Nearest Obstruction: **40 ft**

15.11. Are Stack Sampling Ports Provided? ☐ YES ☒ NO

Monitoring Information

16. Will Emissions Data be Recorded by a Continuous Emission Monitoring System? ☐ YES ☒ NO

If Yes, Attach a Copy of the Continuous Emission Monitoring System Manufacturer's Specification Sheets

If YES, complete the rest of Question 16. If NO, proceed to Question 17.

16.1. Pollutants Monitored: ☐ VOCs ☐ HAPs ☐ PM ☐ PM_{10} ☐ $PM_{2.5}$ ☐ NO_X ☐ SO_X ☐ Metals
☐ Other (Specify):

16.2. Describe the Continuous Emission Monitoring System:

Monitoring Information

16.3. Manufacturer:

16.4. Model:

16.5. Serial Number:

16.6. Will Multiple Emission Units Be Monitored at the Same Point? ☐ YES ☐ NO

If YES, complete the rest of Question 16. If NO, proceed to Question 17.

16.7. Emission Units Monitored:

16.8. Will More Than One Emission Unit be Emitting From the Combined Point At Any Time? ☐ YES ☐ NO

If YES, complete the rest of Question 15. If NO, proceed to Question 17.

16.9. Emission Units Emitting Simultaneously:

Visible Emissions Monitoring Information

For Primary Fuel

17. Proposed Technique Used to Monitor Visible Emissions:
☐ Opacity Monitor (COM)
☒ Manual (Method 9)
☐ Manual (Method 22)
☐ Other (Describe):

If an Opacity Monitor (COM) is used, complete the rest of Question 17. If not, proceed to Question 18.

17.1. Describe the Continuous Opacity Monitoring System:

17.2. Manufacturer:

17.3. Model:

17.4. Serial Number:

18. Proposed Frequency of Opacity Monitoring: **Once initially**

For Secondary Fuel. If no Secondary Fuel is used, proceed to Question 20.

19. Proposed Technique Used to Monitor Visible Emissions:
☐ Opacity Monitor (COMs)
☐ Manual (Method 9)
☐ Manual (Method 22)
☐ Other (Describe):

If an Opacity Monitor (COMs) is used, complete the rest of Question 19. If not, proceed to Question 20.

19.1. Describe the Continuous Opacity Monitoring System:

19.2. Manufacturer:

19.3. Model:

19.4. Serial Number:

20. Proposed Frequency of Opacity Monitoring:

Voluntary Emission Limitation Request Information

21.	Are You Requesting Any Voluntary Emission Limitations to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.?	☐ YES ☒ NO
If YES, complete the rest of Question 21. If NO, proceed to Question 22.		
21.1.	Describe Any Proposed Emission Limitations:	

Voluntary Operating Limitation Request Information

22.	Are You Requesting Any Voluntary Operating Limitations to Avoid Major Source Status, Minor New Source Review, MACT, NSPS, etc.?	☐ YES ☒ NO
If YES, complete the rest of Question 22. If NO, proceed to Question 23.		
22.1.	Describe Any Proposed Operating Limitations:	

Additional Information

23.	Is There Any Additional Information Pertinent to this Application?	☐ YES ☒ NO
If YES, complete the rest of Question 23.		
22.1.	Describe:	

Form AQM-5

Emission Information Application

Emissions Information Application

If you are using this form electronically, press F1 at any time for help

Process Information	
1.	Number of Individual Pieces of Process Equipment in Process: **1**
2.	Number of Individual Control Devices in Process:

Emissions Information for First Emission Point/Stack

3. Emission Point Name: **Wood Grinder**

4. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack: **1**

5. Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 5.10 through 5.18)	CAS Number (Not required for 5.1 through 5.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
5.1.	Particulate Matter (PM)		**5.4 lbs/hour**	**5.4 lbs/hour**	**23.6** tons/year	**8.1** tons/year
5.2.	PM_{10}		**3.1 lbs/hour**	**3.1 lbs/hour**	**11.48** tons/year	**3.93** tons/year
5.3.	$PM_{2.5}$		**3.1 lbs/hour**	**3.1 lbs/hour**	**0.97** tons/year	**0.33** tons/year
5.4.	Sulfur Oxides (SO_X)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
5.5.	Nitrogen Oxides (NO_X)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
5.6.	Carbon Monoxide (CO)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
5.7.	Total Volatile Organic Compounds (VOCs)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
5.8.	Total Hazardous Air Pollutants (HAPs)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year

Emissions Information for First Emission Point/Stack

5.9. CO_2		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
5.10. CO_{2e}		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
5.11.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.12.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.13.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.14.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
5.15.		**lbs/hour**	**lbs/hour**	tons/year	tons/year

6. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above: **See Emissions Calculations**

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

Emissions Information for Second Emission Point/Stack

7. Emission Point Name: **Grinder Engine**

8. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack: **2**

9. Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 9.10 through 9.18)	CAS Number (Not required for 9.1 through 9.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
9.1.	Particulate Matter (PM)		**0.06 lbs/hour**	**0.06 lbs/hour**	**0.26** tons/year	**0.1** tons/year
9.2.	PM_{10}		**0.06 lbs/hour**	**0.06 lbs/hour**	**0.26** tons/year	**0.1** tons/year
9.3.	$PM_{2.5}$		**0.06 lbs/hour**	**0.06 lbs/hour**	**0.26** tons/year	**0.1** tons/year

Emissions Information for Second Emission Point/Stack

9.4.	Sulfur Oxides (SO_x)		**0.01 lbs/hour**	**0.01 lbs/hour**	**0.044** tons/year	**0.015** tons/year
9.5.	Nitrogen Oxides (NO_x)		**4.84 lbs/hour**	**4.84 lbs/hour**	**21.2** tons/year	**7.26** tons/year
9.6.	Carbon Monoxide (CO)		**0.16 lbs/hour**	**0.16 lbs/hour**	**0.7** tons/year	**0.23** tons/year
9.7.	Total Volatile Organic Compounds (VOCs)		**0.06 lbs/hour**	**0.06 lbs/hour**	**0.26** tons/year	**0.1** tons/year
9.8.	Total Hazardous Air Pollutants (HAPs)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
9.9.	CO_2		**1092 lbs/hour**	**1092 lbs/hour**	**4783** tons/year	**1640** tons/year
9.10.	CO_{2e}		**1121 lbs/hour**	**1121 lbs/hour**	**43231** tons/year	**15000** tons/year
9.11.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.13.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.14.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
9.15.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

10. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

Emissions Information for Third Emission Point/Stack

11. Emission Point Name:

12. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:

13. Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

Emissions Information for Third Emission Point/Stack

	Pollutant Name (Specify VOCs and HAPs Individually in 13.10 through 13.18)	CAS Number (Not required for 13.1 through 13.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
13.1.	Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.2.	PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.3.	$PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.4.	Sulfur Oxides (SO_X)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.5.	Nitrogen Oxides (NO_X)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.7.	Total Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.9.	CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.10.	CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.11.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.13.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.14.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
13.15.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

14. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

Emissions Information for Fourth Emission Point/Stack

15. Emission Point Name:

16. Equipment ID Number for all Process Equipment and Control Devices Venting Through Emission Point/Stack:

17. Pollutant Emissions

If more than 15 pollutants are emitted at this Emission Point/Stack, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 17.10 through 17.18)	CAS Number (Not required for 17.1 through 17.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
17.1.	Particulate Matter (PM)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.2.	PM_{10}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.3.	$PM_{2.5}$		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.4.	Sulfur Oxides (SO_X)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.5.	Nitrogen Oxides (NO_X)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.6.	Carbon Monoxide (CO)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.7.	Volatile Organic Compounds (VOCs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.8.	Total Hazardous Air Pollutants (HAPs)		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.9.	CO_2		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.10.	CO_{2e}		**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.11.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.13.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.14.			**lbs/hour**	**lbs/hour**	tons/year	tons/year
17.15.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

Emissions Information for Fourth Emission Point/Stack

18. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

If there are more than four Emission Points/Stacks, attach additional copies of this form as needed.

Overall Process Emissions

19. Pollutant Emissions

If more than 15 pollutants are emitted from this Process, attach additional copies of this page as needed.

	Pollutant Name (Specify VOCs and HAPs Individually in 19.10 through 19.18)	CAS Number (Not required for 19.1 through 19.10)	Maximum Uncontrolled Emission Rate at Design Capacity	Maximum Controlled Emission Rate at Design Capacity	Annual Potential to Emit (PTE)	Requested Permitted Annual Emissions
19.1.	Particulate Matter (PM)		**5.46 lbs/hour**	**5.46 lbs/hour**	**23.92** tons/year	**8.2** tons/year
19.2.	PM_{10}		**2.68 lbs/hour**	**2.68 lbs/hour**	**11.75** tons/year	**4.02** tons/year
19.3.	$PM_{2.5}$		**0.28 lbs/hour**	**0.28 lbs/hour**	**1.24** tons/year	**0.42** tons/year
19.4.	Sulfur Oxides (SO_X)		**0.01 lbs/hour**	**0.01 lbs/hour**	**0.044** tons/year	**0.015** tons/year
19.5.	Nitrogen Oxides (NO_X)		**4.84 lbs/hour**	**4.84 lbs/hour**	**21.21** tons/year	**7.26** tons/year
19.6.	Carbon Monoxide (CO)		**0.16 lbs/hour**	**0.16 lbs/hour**	**0.68** tons/year	**0.23** tons/year
19.7.	Total Volatile Organic Compounds (VOCs)		**0.06 lbs/hour**	**0.06 lbs/hour**	**0.27** tons/year	**0.094** tons/year
19.8.	Total Hazardous Air Pollutants (HAPs)		**0 lbs/hour**	**0 lbs/hour**	**0** tons/year	**0** tons/year
19.9.	CO_2		**1092 lbs/hour**	**1092 lbs/hour**	**4785** tons/year	**1640** tons/year
19.10.	CO_{2e}		**1121 lbs/hour**	**1121 lbs/hour**	**43231** tons/year	**15000** tons/year
19.12.			**lbs/hour**	**lbs/hour**	tons/year	tons/year

Overall Process Emissions

19.13.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.14.		**lbs/hour**	**lbs/hour**	tons/year	tons/year
19.15.		**lbs/hour**	**lbs/hour**	tons/year	tons/year

20. Provide Any Additional Information Necessary to Understanding the Emission Rates Provided Above:

Attach the Basis of Determination or Calculations for each Emission Rate provided above.

Minor New Source Review Information

21. Does the Process Have the Potential to Emit More Than Five Tons Per Year of Any Pollutant? ☒ YES ☐ NO

22. Is the Source New or Existing? ☒ NEW ☐ EXISTING
See Question 11 of AQM-1

If the Process has the Potential to Emit more than five tons per year of any pollutant, and is a New Source, a Control Technology Analysis pursuant to Regulation No. 1125 Section 4 must be conducted and attached to this application.

Major New Source Review Information

23. Does the Process Have the Potential to Emit More Than the Significance Level for Any Pollutant? *(Check All That Apply)*

- ☐ Greater Than 25 Tons Per Year of Particulate Matter (PM)
- ☐ Greater Than 15 Tons Per Year of PM_{10}
- ☐ Greater Than 10 Tons Per Year of $PM_{2.5}$
- ☐ Greater Than 40 Tons Per Year of Sulfur Dioxide(SO_2)
- ☐ Greater Than 25 Tons Per Year of Nitrogen Oxides (NO_X) in New Castle and Kent County
- ☐ Greater Than 100 Tons Per Year of Nitrogen Oxides (NO_X) in Sussex County
- ☐ Greater Than 100 Tons Per Year of Carbon Monoxide (CO)
- ☐ Greater Than 25 Tons Per Year of Total Volatile Organic Compounds (VOCs) in New Castle and Kent County
- ☐ Greater Than 50 Tons Per Year of Total Volatile Organic Compounds (VOCs) in Sussex County
- ☐ Greater Than 75,000 Tons Per Year of Equivalent Carbon Dioxide (CO_{2e})

If the Process has the Potential to Emit greater than any of the amounts listed above 7 DE Admin. Code 1125 Sections 2 and/or 3 apply. Contact the Department at (302) 323-4542 or (302) 739-9402 for additional information

Additional Information

24. Is There Any Additional Information Pertinent to this Application? ☐ YES ☒ NO

If YES, complete the rest of Question 24.

24.1. Describe:

Emission Calculations

Mitsdarfer Brothers Tree Service, LLC
Vermeer HG6800TX Horizontal Wood Grinder Emissions

Equipment	Max Output[1]	PM Emissions[2]			CO Emissions[2]	NOx Emissions[2]	SO2 Emissions[3]	NMHC Emissions[2]
		PM[4]	PM 10[4]	PM 2.5[4]	Based on 950 HP / 708 kW	Based on 950 HP / 708 kW	Based on Sulfur Content	Based on 950 HP / 708 kW
Caterpillar	950 HP 708.4 kW	4.00E-02 g/kw-hr	4.00E-02 g/kw-hr	4.00E-02 g/kw-hr	1.00E-01 g/kw-hr	3.10E+00 g/kw-hr		4.00E-02 g/kw-hr
C27 ACERT, Tier 4		6.58E-05 lb/hp-hr	6.58E-05 lb/hp-hr	6.58E-05 lb/hp-hr	1.64E-04 lb/hp-hr	5.10E-03 lb/hp-hr		6.58E-05 lb/hp-hr
S/N: AT400613	2340 hrs/yr	0.06 lb/hr	0.06 lb/hr	0.06 lb/hr	0.16 lb/hr	4.84 lb/hr	0.010011 lb/hr	0.06 lb/hr
		146.18 lb/yr	146.18 lb/yr	146.18 lb/yr	365.46 lb/yr	11329.30 lb/yr	23.43 lb/yr	146.18 lb/yr
		0.0731 ton/yr	0.0731 ton/yr	0.0731 ton/yr	**0.18 ton/yr**	**5.66 ton/yr**	**0.01171 ton/yr**	**0.0731 ton/yr**

Equipment	Max Output	Uncontrolled PM Emissions[5]		
		PM[5]	PM 10[5, 6]	PM 2.5[5, 6]
Vermeer	2340 hrs/yr			
HG6800TX Horizontal Wood Grinder	200 ton/hr[7]	2.40E-02 lb/ton[5]	1.20E-02 lb/ton[5]	4.20E-06 lb/ton[5]
		4.80 lb/hr	2.40 lb/hr	0.0008 lb/hr
S/N: 1VRK48040L1000156		11,232.00 lb/yr	5,616.00 lb/yr	1.9656 lb/yr
		5.62 ton/yr	2.81 ton/yr	0.0010 ton/yr

Equipment	Max Output	Uncontrolled PM Emissions[5]		
		PM[5]	PM 10[5]	PM 2.5[5]
HG6800TX Horizontal Wood Grinder	2340 hrs/yr			
Conveyor Discharge	200 ton/hr[7]	3.00E-03 lb/ton[5]	1.10E-03 lb/ton[5]	1.10E-03 lb/ton[5]
		0.60 lb/hr	0.22 lb/hr	0.22 lb/hr
		1,404.00 lb/yr	514.80 lb/yr	514.80 lb/yr
		0.70 ton/yr	0.26 ton/yr	0.26 ton/yr

Total Crusher+Conveyor Uncontrolled PM Emissions		
PM	PM 10	PM 2.5
5.40 lb/hr	2.62 lb/hr	0.22 lb/hr
12636.00 lb/yr	6130.80 lb/yr	516.77 lb/yr
6.32 ton/yr	**3.07 ton/yr**	**0.26 ton/yr**

Notes:

[1] Caterpillar Model C27 ACERT diesel engine is Tier 4 CARB certified, engine family KCPXL27.0HXF.

[2] Based on exhaust emission certification for Engine Family KCPXL27.0HXF.

[3] SOx based on an average fuel consumption of 47 gallons/hour (based on engines of similar size) at a maximum sulfur content of 0.0015% for diesel fuel.

[4] Footnote in AP-42, Table 3.3-1 - All particulate is assumed to be less than or equal to 1μ in size.

[5] Emission factors based on log debarking provided in "Particulate Matter Potential to Emit Emission Factors for Activities at Sawmills, Excluding Boilers, Located in Pacific Northwest Indian Country," USEPA May 8 2014. It is assumed that the emission factors are comparable to wood grinding.

[6] Estimated maximum capacity of grinder, based on information provided by Mitsdarfer Brothers Tree Service, LLC.

[7] 2,340 Hours/year estimate based on operation 9 hours a day, 5 days a week.

Assumptions:

Total Hours per year = 2340

Crusher Engine Output = 950 HP/708 kW

Sulfur content = 0.0015%

Rev 0, 5/17/21

Mitsdarfer Bros. Tree Service. - Greenhouse Gas Emissions Calculations
Engines - CO2e

Equipment	Max Output[1]	CO_2 Emissions[1]	N_2O Emissions[1,3]	Methane[2]	Total Greenhouse Gas Emissions
Caterpillar C27 ACERT Diesel Engine	950 HP (Total) 709 kW (Total)	Based on 75 HP / 56 kW	Based on 75 HP / 56 kW	Based on 75 HP / 56 kW	Total CO2e Greenhouse Gas Emissions
		1.15 lb CO2/hp-hr	0.031 lb/hp-hr	6.35E-05 lb/hp-hr	
		1092.50 lb CO2/hr	29.45 lb/hr	0.060 lb/hr	
	2340 hrs/yr (max)	2,556,450 lb CO2/yr	68,913 lb/yr	141.049 lb/yr	
		1278.23 tons CO2/year	**34.46 tons N2O/year**	**0.0705 tons CH4/year**	
		1 GWP	**298 GWP**	**25 GWP**	
	Based on 160 hrs/year =	**1278.23 Tons CO2e/year[4]**	**10268.04 Tons CO2e/year[4]**	**1.76 Tons CO2e/year[4]**	**11,548.03 Tons CO2e/year[4]**

Notes:

1). Based emission factors from AP-42 table 3.3-1 .

2). Based a TOC emission factor of 0.000705 lb/hp-hr from AP-42 table 3.4-1 and that TOC is by weight 9% methane and 91% nonmethane.

3.) Assumes worst case scenario that all NOx emissions = N_2O emissions

4.) Ton equivalents of CO2 (TECO2) are based on the comparison ratio of the 100 yr global warming potentials obtained for the reference comparison to CO2 from 40 CFR Part 98 subpart A Table A-1 Global Warming Potentials (GWP)

Assumptions:

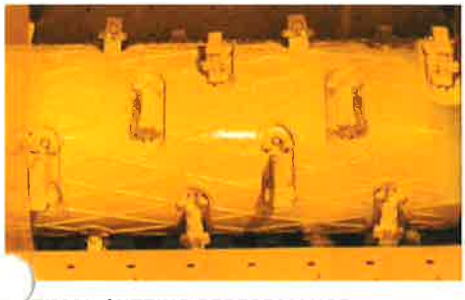
1 g	0.002205	lbs
Hours per year	2340	hrs/yr
Engine Max Output (Total)	950	hp
	709	kw
Diesel Sulfur Content	0.0015	%
1 Ton	2000	lbs

Rev. 0, May 18, 2021

Equipment Specifications

Vermeer HG6800TX Horizontal Wood Grinder & Engine

HG6800TX
HORIZONTAL GRINDER



OPTIMAL CUTTING PERFORMANCE. The Series III hard-faced patented duplex drum has increased life with enhancements such as an independently secured wedge system and enhanced drum balancing.

CONVENIENT FEEDING. The HG6800TX features low sidewalls to aid in feeding whole trees and other larger material with less restriction, reducing the number of user interactions with the material.

MOBILITY. The DT6 optional integrated dolly transport system eliminates the need for a dedicated trailer to move between sites.

JOBSITE SAFETY. The thrown object deflector (TOD) reduces the amount and distance of thrown material debris.

ENGINE HORSEPOWER. The dynamic combination of a high-horsepower engine on a machine boasting a compact design, results in a versatile horizontal grinder with high production capabilities.

CONVENIENT CONTROL. The transceiver remote is equipped with the machine control menu, providing the ability to supply the user with machine-operating information to monitor the machine's health, and a fault log.

VERMEER.COM

Vermeer

EQUIPPED TO DO MORE.

HG6800TX HORIZONTAL GRINDER

GENERAL DIMENSIONS

Max transport length: 48.1' (14.7 m)
Max transport width: 10' (3.1 m)
Max transport height: 12' (3.7 m)

ENGINE OPTION ONE

Make and model: CAT C27 Tier 4 Final
Gross horsepower: 950 hp (708 kW)
Fuel tank capacity: 350 gal (1324.9 L)
Fan: Hydraulic reversing
Clutch type: PT Tech HPTO15 FX

ENGINE OPTION TWO

Make and model: CAT C27 Tier 2
Gross horsepower: 950 hp (708 kW)
Fuel tank capacity: 350 gal (1324.9 L)
Fan: Hydraulic reversing
Clutch type: PT Tech HPTO15 FX

INFEED SYSTEM

Feed table width: 60" (152.4 cm)
Feed table length: 20' (6.1 m)
Feed opening height: 50" (127 cm)
Infeed roller diameter: 36.1" (91.7 cm)

DUPLEX DRUM

Duplex drum: Series III hardfaced drum
Drum cutting width: 62.4" (158.5 cm)
Tip diameter: 36.4" (92.5 cm)
Number of hammers: 10
Number of tips: 20
Screen area: 3583 in^2 (23116.1 cm^2)
Thrown object deflector: Standard

DISCHARGE SYSTEM

Belt width: 48" (121.9 cm)
Load height: 14' (14.6 m)

TRACK

Track type: D5 double grouser
Track width: 26" (66.1 cm)
Ground speed: 2.8 mph (4.5 km/h)

CONTROL STATION

Radio remote type: Transceiver with LCD
Gauges: Panel-mount LCD with keypad inputs
Engine information: Yes
Machine information: Yes
Operational faults: Yes

OPTIONS

Damage Defense system
Magnetic discharge conveyor pulley
Extended warranty
Vermeer Confidence Plus® asset protection program
Special paint
Screen hoist
Air compressor
DT6 dolly transport system

Vermeer

EQUIPPED TO DO MORE.

06/17.1.5k

PN 180026156

CATERPILLAR

Engine Emissions Data

For Emissions / Certification feedback and questions, please submit a ticket via our ERC Request Portal

This emission data is Caterpillar's best estimate for this rating. If actual emissions are required then an emission test needs to be run on your engine.

Serial Number (Machine)	
Serial Number (Engine)	**AT400613**
Sales Model	C27
Regulatory Build Date	16-MAY-2019
As Shipped Data	
Engine Arrangement Number	4572083
Certification Arrangement	3611820
Test Spec Number	4486119
Regulatory Status	EPA / ARB / EU / China Export
Labeled Model Year	2019
EPA Family Code	KCPXL27.0HXF
EPA Emissions Level	EPA TIER 4f
EU Emissions Level	EU STAGE V
EU Type Approval	e24*2016/1628*2017/656EV7/D*0126
As-Shipped Flash File	5654280
CORR FL Power at RPM	960 HP (716.0 KW)1800 RPM
Advertised Power	950 HP 1,800RPM
Total Displacement	27.0 L

Disclaimer: The information provided has been compiled from third party sources and is accurate to the best of Caterpillar's knowledge. However, Caterpillar cannot guarantee the accuracy, completeness, or validity of the information and is not liable for any errors or omissions contained therein. All information provided should be independently verified and confirmed, including by examining the emissions label located on the engine.

Need emission replacement label? Click here!

Caterpillar Confidential: **Green**
Content Owner: Commercial Processes Division
Web Master(s): PSG Web Based Systems Support
Current Date: 5/17/2021, 11:10:16 AM

PRODUCT SPECIFICATIONS FOR C27 ACERT™ (TIER 4 FINAL)

GENERAL SPECIFICATIONS

Minimum Rating	800 BHP
Maximum Rating	950 BHP
Governor and Protection	ADEM A4
Aspiration	Turbocharged-Aftercooled
Displacement	1648 in^3
Flywheel and Flywheel Housing	SAE No. 0
Flywheel Teeth	136
Rotation from Flywheel End	Counterclockwise
Stroke	6 in
Bore	5.4 in

EMISSIONS

Emissions	U.S. EPA Tier 4 Final

DIMENSIONS

Length	85 in
Width	49 in
Height	63 in
Weight	6151 lb

CAPACITY FOR LIQUIDS

Cooling System	15.9 gal (US)

C27 ACERT™ (TIER 4 FINAL) STANDARD EQUIPMENT

AIR INLET SYSTEM

Twin rear-mounted turbochargers, ATAAC

CONTROL SYSTEM

Automatic altitude compensation; power compensation for fuel temperature; electronic diagnostics and fault logging; engine monitoring and protection system (speeds, temperature, pressure); J1939 Broadcast (diagnostic, engine status and control); ADEM A4 electronic control

COOLING SYSTEM

Thermostats and housing; jacket water pump, geardriven, centrifugal, RH

EXHAUST SYSTEM

Exhaust dry manifold, 127 mm (5 in) slip fit connection, diesel oxidation catalyst

FUEL SYSTEM

Mechanical Electronic Unit Injection (MEUI™) system; primary, secondary, and tertiary fuel filter; electronic fuel priming pump-integrated with primary fuel filter base; fuel transfer pump

LUBE SYSTEM

Remote-mounted oil filters and RH-side blockmounted filters are available; crankcase fumes disposal system, RH mounted; oil cooler — RH; oil filler — RH; oil level gauge — RH; shallow rear sump oil pan — 250-hour

CALIFORNIA AIR RESOURCES BOARD	CATERPILLAR INC.	EXECUTIVE ORDER U-R-001-0557 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in California Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2019	KCPXL27.0HXF	27.0	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Oxidation Catalyst, Exhaust Gas Recirculation	Tractor, Loader, Pump, Off-road Truck, Motor Grader, Shovel, Commercial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
ELSE > 560 kW	Tier 4 Final	STD	0.19	3.5	N/A	3.5	0.04	N/A	N/A	N/A
		CERT	0.04	3.1	--	0.1	0.04	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 21 day of September 2018.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

ATTACHMENT 1 OF 1

Engine Model Summary Template

U-R-001-0557

R/C 7-25-2019

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
KCPXL27.0HXF	Cert Test 1	C27	1046@1800	305	372	3412@1200	336	263	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	1	C27	811@1800	232	281	3207@1200	306	247	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	2	C27	811@1800	232	281	2778@1200	267	216	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	3	C27	761@1800	218	264	3002@1200	289	234	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	4	C27	761@1800	218	264	2573@1200	248	200	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	5	C27	798@1800	227	275	2689@1200	263	212	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	6	C27	874@1800	234	307	2947@1200	290	234	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	7	C27	948@1800	272	330	3200@1200	312	252	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	8	C27	948@1800	272	330	3200@1200	312	252	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	9	C27	752@1800	214	257	2583@1200	262	203	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	10	C27	756@1800	214	258	2679@1200	262	211	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	11	C27	874@1800	234	307	2947@1200	290	232	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	12	C27	797@1800	235	284	2660@1200	262	206	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	13	C27	797@1800	235	284	2660@1200	262	206	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	14	C27	872@1800	254	307	2924@1200	287	225	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	15	C27	872@1800	254	307	2924@1200	287	225	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	16	C27	947@1800	275	333	3171@1200	310	244	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	17	C27	947@1800	275	333	3171@1200	310	244	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	18	C27	1046@1800	305	372	3412@1200	336	263	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	19	C27	1046@1800	305	372	3412@1200	336	263	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	20	C27	811@1800	232	281	2778@1200	267	216	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	21	C27	752@1800	214	257	2583@1200	262	203	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	22	C27	1047@1800	299	362	3418@1200	329	266	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	23	C27	872@1800	254	307	2924@1200	287	225	DFI,TC,ECM,CAC,EGR,OC
KCPXL27.0HXF	24*	C27	811@1800	232	281	3207@1200	306	247	DFI,TC,ECM,CAC,EGR,OC

* New Engine Code.

Zoning Information

709 Stanton Christiana Road
Newark, DE 19713

Parcel # 0901100004

Property Address: 715 STANTON CHRISTIANA RD
NEWARK, DE 19713-
Subdivision:
Owner: A & J PROPERTY HOLDING LLC
2 WINTERBURY CIRCLE
Owner Address:
WILMINGTON, DE 19808
Municipal Info: Unincorporated

Lot #:
Location:
Map Grid: 08203480
Block:
Census Tract: 138.00
Street Type:
Water:
Microfilm #: 000000

Property Class: COMMERCIAL
Lot Size: 1.69
Lot Depth: 0
Lot Frontage: 0
Street Finish:

Related Project Plans

	A/P No.	Project Name	Work Type	Status
Details	20040548	715 STANTON CHRISTIANA ROAD	BOARD OF ADJUSTMENT	COMPLETE
Details	20070403	CLASSIC ONE AUTO WHOLESALERS	ZONING VERIFICATION PROCESS	COMPLETE
Details	20110052	715 STANTON CHRISTIANA RD	ZONING VERIFICATION PROCESS	COMPLETE

Permit History (July 1998 – present)

	A/P No.	Permit Type	Status
Details	199903836	RESIDENTIAL RENOVATION/REPAIR	Closed

District & Zoning Info

Districts

- FIRE/RESCUE - MILL CREEK
- COLONIAL SCHOOL DIST-TRES
- NORTH OF C&D CANAL
- COUNCIL 1 - KENNETH R WOODS
- PLANNING 10 - UPPER CHRISTINA
- TRAFFIC ZONE T152 (YR2000)
- ADD REQ PER SEC 10.3.4.4 DSSR
- SEWER DISTRICT NORTHERN-ASMT
- DE REP 19-KIMBERLY WILLIAMS
- FLOODPLAIN
- DE SEN 09-JOHN "JACK" WALSH

Zoning

- I - UDC - INDUSTRIAL

Deed History

Grantee(s)	Deed	Multi?	Sale Date	Sale Amount
VATTILANA BROS	213 159	N	3/1/1985	$215,000.00
VATTILANA BROTHERS &	2171 218	N	9/18/1996	$10.00
VATTILANA BROTHERS	2356 117	N	10/20/1997	$10.00
VATTILANA ANNA F & AS TRUSTEE	2569 328	N	12/30/1998	$10.00
VATTILANA ANNA F TRUSTEE	2809 135	N	4/4/2000	$10.00
A & J PROPERTY HOLDING LLC	20190423 0029197	Y	4/16/2019	$10.00

Tax/Assessment Info

Assessment

Land: 59200
Structure: 208100
Homesite: 0
Total: 267300
County Taxable: 267300
School Taxable: 267300

Tax Bills as of 5/17/2021 3:01:07 AM

	County			School		
Tax Year	Principal Due	Penalty Due	Amt Paid	Principal Due	Penalty Due	Amt Paid
2010A	$0.00	$0.00	$1,914.86	$0.00	$0.00	$4,097.71
2011A	$0.00	$0.00	$1,931.02	$0.00	$0.00	$4,028.21
2012A	$0.00	$0.00	$1,923.11	$0.00	$0.00	$3,945.35
2013A	$0.00	$0.00	$1,922.95	$0.00	$0.00	$4,961.09
2014A	$0.00	$0.00	$1,930.36	$0.00	$0.00	$5,050.10
2015A	$0.00	$0.00	$1,922.28	$0.00	$0.00	$5,054.65
2016A	$0.00	$0.00	$1,911.35	$0.00	$0.00	$5,063.47
2017A	$0.00	$0.00	$1,914.77	$0.00	$0.00	$5,889.42

2018A	$0.00	$0.00	$2,059.14	$0.00	$0.00	$6,297.59
2019A	$0.00	$0.00	$2,196.62	$0.00	$0.00	$6,318.97
2020A	$0.00	$0.00	$2,213.08	$0.00	$0.00	$6,318.97

Tax Payments as of 5/17/2021 3:01:07 AM

Date Paid	Amt Paid
9/8/2010	$6,012.57
9/9/2011	$5,959.23
9/13/2012	$5,868.46
9/16/2013	$6,884.04
9/23/2014	$6,980.46
9/15/2015	$6,976.93
9/21/2016	$6,974.82
9/20/2017	$7,804.19
9/12/2018	$8,356.73
10/1/2019	$8,515.59
9/9/2020	$8,532.05

County Balance Due: $0.00

School Balance Due: $0.00

These amounts are valid through the last day of the month. For accounts with delinquent balances, statutory penalty will accrue on the first day of next month.

Sewer History as of 5/17/2021 3:01:28 AM

Tax Year	Principal Due	Penalty Due	Date Paid	Amount Paid
2009S1	$0.00	$0.00	1/3/2012	$142.78
2009S2	$0.00	$0.00	1/3/2012	$142.78
2009S3	$0.00	$0.00	1/3/2012	$156.63
2009S4	$0.00	$0.00	1/3/2012	$156.63
2010S1	$0.00	$0.00	1/3/2012	$210.64
2010S2	$0.00	$0.00	1/3/2012	$210.64
2010S3	$0.00	$0.00	1/3/2012	$219.87
2010S4	$0.00	$0.00	1/3/2012	$219.87
2011S1	$0.00	$0.00	1/3/2012	$140.95
2011S2	$0.00	$0.00	1/3/2012	$140.95
2011S3	$0.00	$0.00	1/3/2012	$146.44
2011S4	$0.00	$0.00	11/9/2011	$146.44
2012S1	$0.00	$0.00	2/21/2012	$146.44
2012S2	$0.00	$0.00	5/10/2012	$146.44
2012S3	$0.00	$0.00	8/1/2012	$146.44
2012S4	$0.00	$0.00	11/16/2012	$146.44
2013S1	$0.00	$0.00	2/28/2013	$146.44
2013S2	$0.00	$0.00	5/22/2013	$146.44
2013S3	$0.00	$0.00	8/29/2013	$152.15
2013S4	$0.00	$0.00	12/2/2013	$152.15
2014S1	$0.00	$0.00	3/27/2014	$109.55
2014S2	$0.00	$0.00	5/21/2014	$109.55
2014S3	$0.00	$0.00	7/31/2014	$109.55
2014S4	$0.00	$0.00	12/8/2014	$109.55
2015S1	$0.00	$0.00	3/2/2015	$91.29
2015S2	$0.00	$0.00	5/29/2015	$91.29
2015S3	$0.00	$0.00	9/3/2015	$91.29
2015S4	$0.00	$0.00	11/10/2015	$91.29
2016S1	$0.00	$0.00	3/3/2016	$109.55
2016S2	$0.00	$0.00	5/16/2016	$109.55
2016S3	$0.00	$0.00	8/26/2016	$109.55
2016S4	$0.00	$0.00	11/23/2016	$109.55
2017S1	$0.00	$0.00	2/27/2017	$127.81
2017S2	$0.00	$0.00	5/25/2017	$127.81
2017S3	$0.00	$0.00	9/6/2017	$127.81
2017S4	$0.00	$0.00	11/21/2017	$127.81
2018S1	$0.00	$0.00	2/14/2018	$115.64
2018S2	$0.00	$0.00	5/23/2018	$115.64
2018S3	$0.00	$0.00	8/15/2018	$129.51
2018S4	$0.00	$0.00	11/14/2018	$129.51
2019S1	$0.00	$0.00	2/27/2019	$252.21
2019S2	$0.00	$0.00	5/14/2019	$252.21
2019S3	$0.00	$0.00	8/27/2019	$252.21
2019S4	$0.00	$0.00	2/25/2020	$267.64
2020S1	$0.00	$0.00	2/25/2020	$218.13
2020S2	$0.00	$0.00	5/14/2020	$218.13
2020S3	$0.00	$0.00	8/17/2020	$218.13
2020S4	$0.00	$0.00	11/23/2020	$218.13
2021S1	$0.00	$0.00	2/19/2021	$252.21
2021S2	$0.00	$0.00	5/5/2021	$252.21

Balance Due: $0.00

These amounts are valid through the last day of the month. Statutory penalty will accrue on the first day of next month.

Commercial Structure Characteristics

Building #: 01

Occupancy: 311 # of Stories: 2 Year Built: 1930

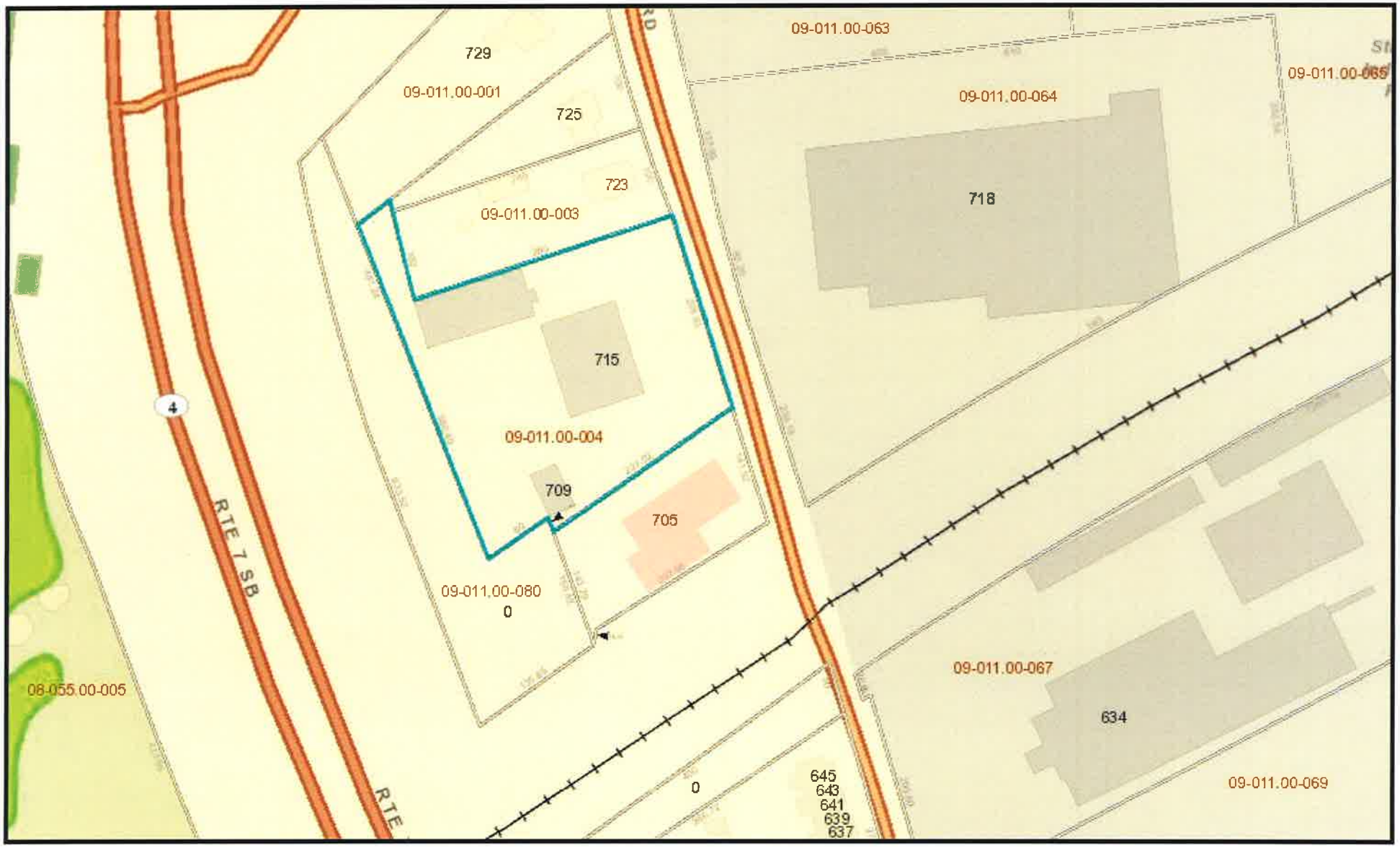
Struct Class:	C	Quality:	C	Condition:	AV
Floor Level:	A	Grnd Flr Area:	754	Total Flr Area:	1508
Ext Wall Type:	10	Wall Height:	10	Perimeter:	220
AC %:	0	Heat %:	90	Rentable Units:	1
Bsmt:	0	Bsmt Util:	0		
Year Renov:	0	Renov Rtng:	0	Eff. Yr Built:	1933

Building #: 02

Occupancy:	430	# of Stories:	1	Year Built:	1960
Struct Class:	C	Quality:	C	Condition:	AV
Floor Level:	F	Grnd Flr Area:	8100	Total Flr Area:	8100
Ext Wall Type:	13	Wall Height:	14	Perimeter:	362
AC %:	0	Heat %:	90	Rentable Units:	1
Bsmt:	0	Bsmt Util:	0		
Year Renov:	0	Renov Rtng:	0	Eff. Yr Built:	1963

Building #: 03

Occupancy:	253	# of Stories:	1	Year Built:	1960
Struct Class:	C	Quality:	C	Condition:	AV
Floor Level:	F	Grnd Flr Area:	5800	Total Flr Area:	5800
Ext Wall Type:	13	Wall Height:	14	Perimeter:	332
AC %:	0	Heat %:	90	Rentable Units:	1
Bsmt:	0	Bsmt Util:	0		
Year Renov:	0	Renov Rtng:	0	Eff. Yr Built:	1963



Parcel Map

Author:

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W E
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New Castle County Delaware GIS: https://gis.nccde.org

Disclaimer: For informational purposes only - not to be used as official documentation.

Date: 5/17/2021

0 0.04 mi

Zoning Information

1107 Willow Grove Road
Felton, DE 19943

KENT COUNTY, DELAWARE

555 Bay Road, Dover, Delaware 19901-3615
(302) 744-2300 -- FAX (302) 736-2279

"Serving Kent County With Pride"

PROPERTY INFORMATION

Planning and Building Permits Information

Reference # NM NORTH MURDERKILL HUNDRED **Card #** 1 **of** 1

Location ID 59310 **Map Number** 7-00-11600-01-3001-00001

Tax ID 116423 **Deed BVP** Z 0039 0063

Parcel ID 55994 **Deed BVP2**

Property Code X - EXEMPT

Current Owner
DEL. SOLID WASTE AUTHORITY,
PO BOX 981
DOVER, DE 19903

Property Location
WILLOW GROVE RD
FELTON , DE 19943

Zoning AR **Acres** .87

Additional Owner

Sub-Division

Sales History				Liv.Sq.Ft	.0000
Date	**Price**	**Assessment**		**Total Rooms**	
0/00/00	0	**Land**	800	**Bedrooms**	
0/00/00	0	**Buildings**		**Full Bath**	
		Total	800	**Half Bath**	

Base Tax Due	.00	Last Billing Detail	History	Farm Info
Tax Penalty	.00			
Total Tax Bal.	.00			
Sewer Balance	.00	**Sewer Account #**		
Neighborhood #	00700	**Coordinates**		0412341 E 0376349 N
Land Use		**Lot Dimensions**		0000000.87
Living Units		**School District**	20	CAESAR RODNEY
Class	Unassig	**Fire District**	48	FELTON COMMUNITY
Plat Book Pg		**Sewer District**	00	NONE
Topography	No Data	**Ambulance District**	48	FELTON COMMUNITY
Street or Road	No Data	**Trash District**		
Fronting	No Data	**Light District**		
Improvement	VACANT	**Commissioner Dist**	6TH	

		Tax Ditches	NONE	

IMPROVEMENT KEY	
MANUF HM	Manufactured Home
MANUFCC	Manufactured Home Class C Assessment
MNFHMRT	Manufactured Home Retired Title

Property Description
N SD ST RT 10

Year Built **Type** NO DATA **Energy Adj.**
Style **Fire Places** **Design**

	Type	Percentage	Type	Percentage
Ext. Walls		0		0
Roof Cover		0		0
Floor Cover		0		0
Heat/Cool		0		0
Plaster Int.		0		
Foundation				
Sub-floor				

	Y/N	Unfinished	Basement Living Area	Rec Room
Basement		0	0	0

	Type	Sq.Feet	Wall	Floor
Garage 1		0		
Garage 2		0		
Bas Gar		NO DATA	NO DATA	NO DATA
Porch 1	NO DATA	0		
Porch 2	NO DATA	0		

History

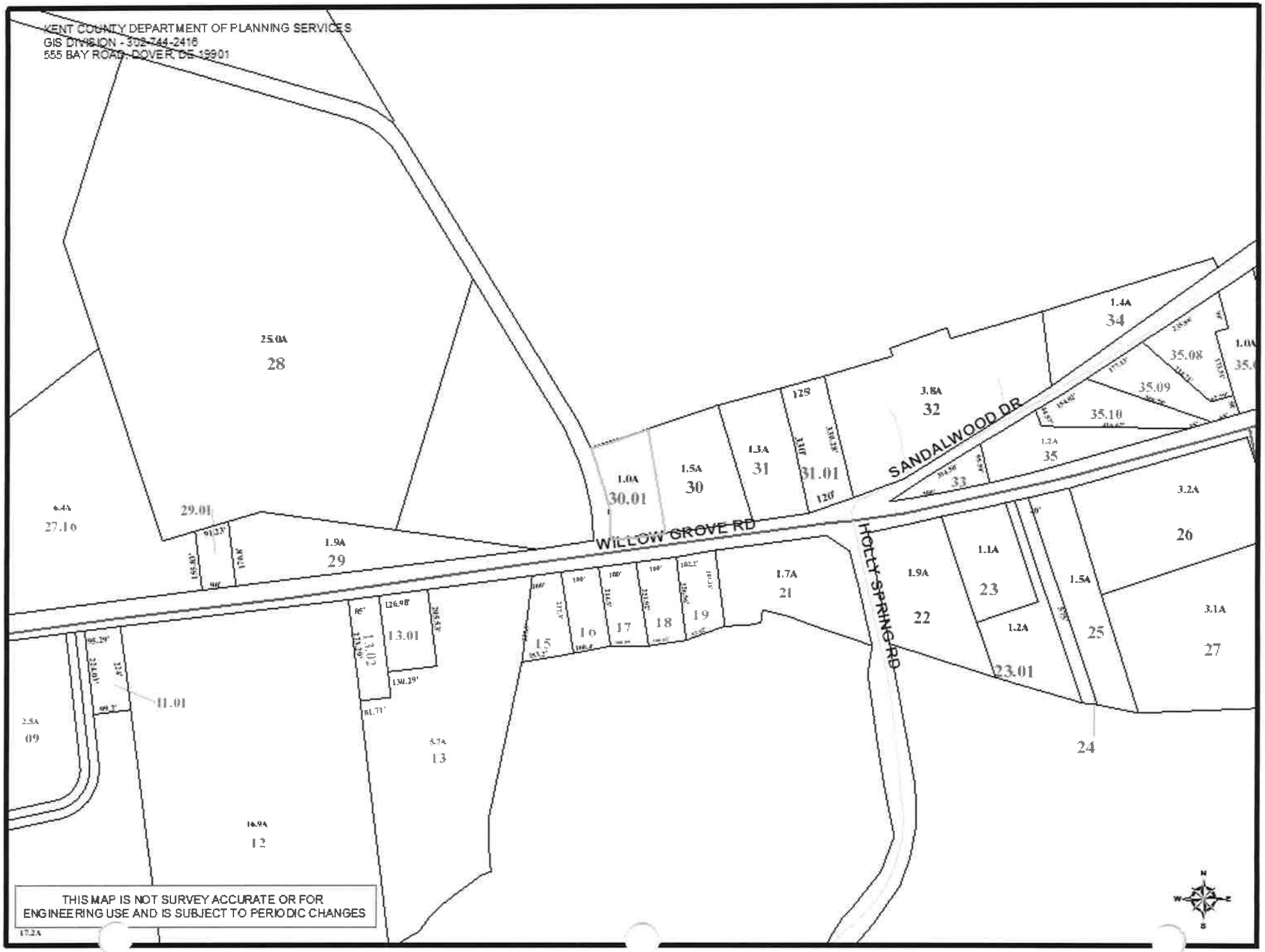
Dimensions 0 X 0
Skirting Type
Skirting Lin Ft 0
Tip Out Sq Ft 0
Serial Number

Manufacturer

Model

Color

OUTBUILDINGS			
Type/Dimn	**Description**	**Type/Dimn**	**Description**


KENT COUNTY DEPARTMENT OF PLANNING SERVICES
GIS DIVISION - 302-744-2416
555 BAY ROAD, DOVER, DE 19901
WILLOW GROVE RD
SANDALWOOD DR
HOLLY SPRING RD
25.0A
28
29.01
27.16
6.4A
1.9A
29
1.0A
30.01
1.5A
30
1.3A
31
31.01
1.2S
3.8A
32
1.4A
34
35.08
35.09
35.10
1.3A
35
33
3.2A
26
1.1A
23
1.9A
22
1.7A
21
1.5A
25
1.2A
23.01
3.1A
27
24
13.02
13.01
11.01
2.5A
09
16.9A
12
5.7A
13
15
16
17
18
19
THIS MAP IS NOT SURVEY ACCURATE OR FOR
ENGINEERING USE AND IS SUBJECT TO PERIODIC CHANGES